



EUROPEAN SPATIAL PLANNING
OBSERVATION NETWORK

A horizontal banner featuring a map of Europe with a color gradient from dark red on the left to light green on the right, representing different regions or countries.

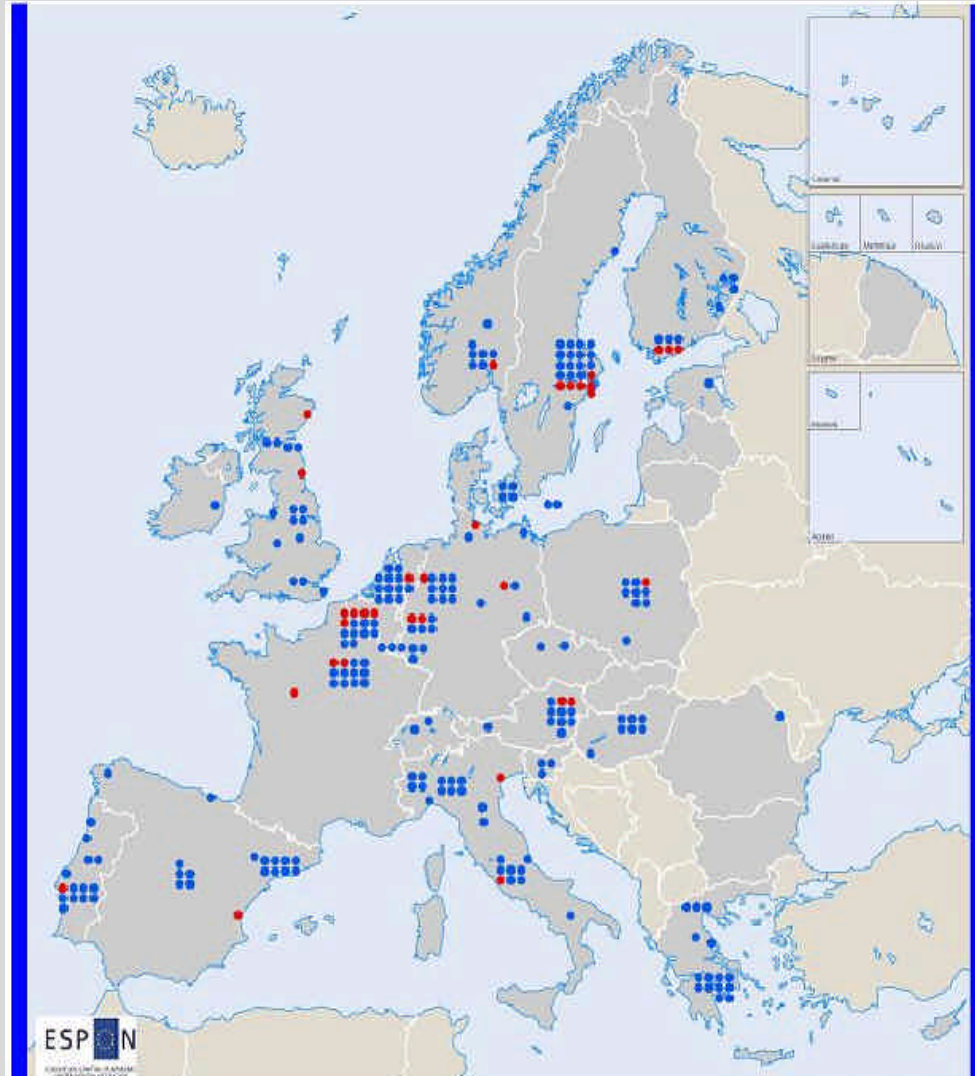
ESPON 2006 and 2013 Programmes

Transnational Territorial Cooperation
Joint Partner Search Seminar
Slovenia 4 and 5 October 2007

ESPON 2006

A Transnational Cooperation Programme...

- Interreg III Programme, hosted by Luxembourg
- 29 Countries participating
- More than 225 partners involved in Transnational Project Groups (TPG)
- More than 130 different European institutions and bodies involved in TPG's
- Well above 2000 participants at ESPON seminars



...Producing applied research projects on European Territorial development

- Activity:
Scientific observation of EU territorial development trends and territorial impact of EU policies
- Objectives:
 - Support to policy development
 - A scientific network and platform for applied European territorial research
- Expectations:
 - New knowledge and evidence on European territorial trends and impacts of EU policies
 - Integrated territorial analysis, tools and prospective scenarios
- Products
 - 34 applied research projects in total, more than 3000 European and world maps
 - Seminars, meetings
 - Publications

ESPON knowledge on:

Trend analysis

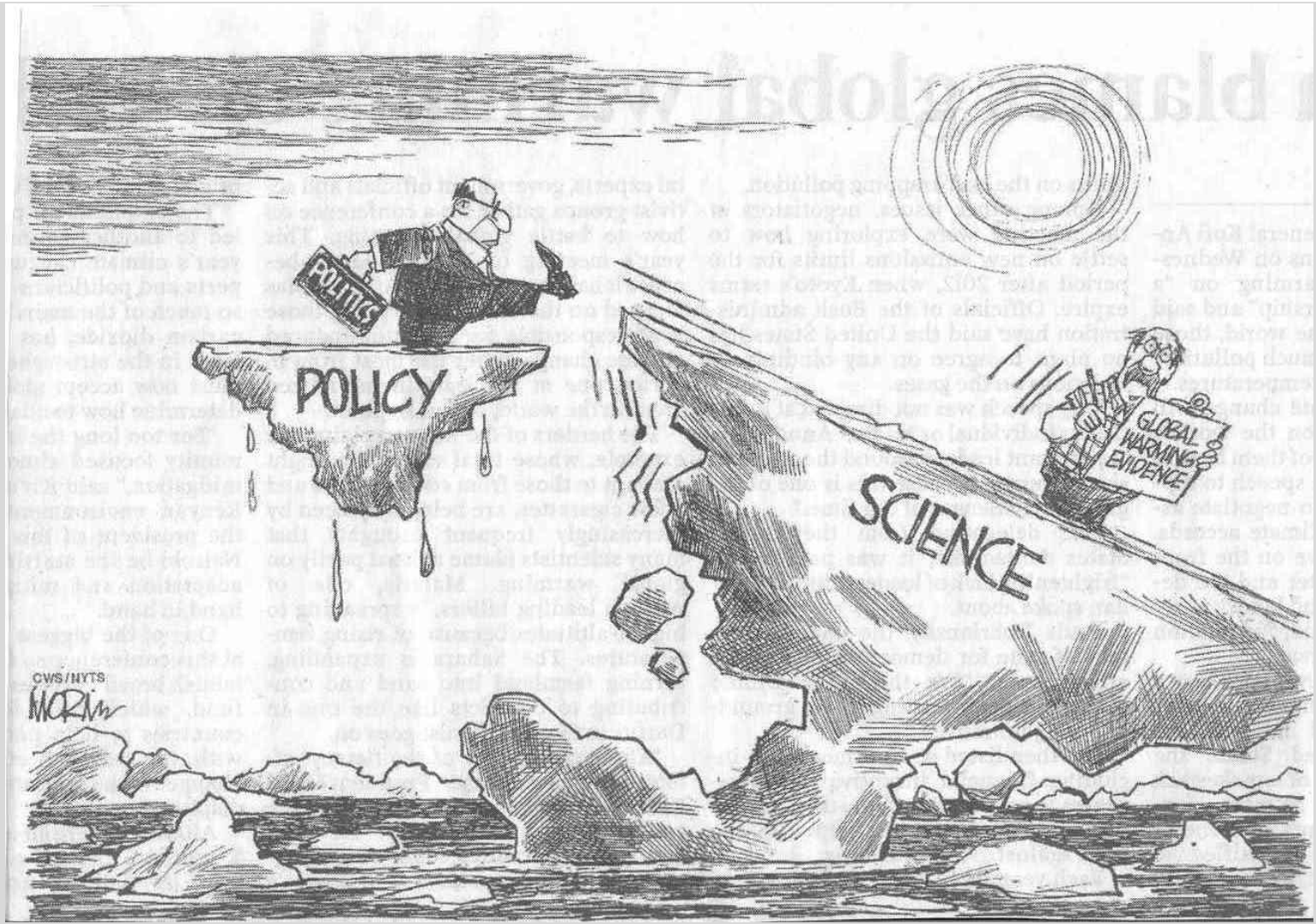
- Urban system and polycentric development, Urban-rural relations
- Accessibility, Transport and Communication networks
- Demography
- Social dimension
- Natural heritage and Cultural heritage, Natural and technological hazards
- ...

EU policy impact analysis

- Transport policy, agricultural policy, research and development policies, Fishery, Energy, Environment, Governance..

Spatial Scenarios, Lisbon Strategy, Europe in the World...

How useful is this knowledge?



Regions and new challenges with territorial impact

- Challenges with territorial impact
 - Accelerating globalisation and emerging new economies
 - Climate change
 - Energy paradigm change
 - Demography and migration
 - Geographical concentration forces in society
- A European (even global) perspective becomes inevitable for regional policy development
 - Responding to global challenges
 - Territorial context for development is enlarging calling for comparisons of regions, their stronger and weaker points, and revealing options for territorial cooperation

What can you expect from ESPON ?

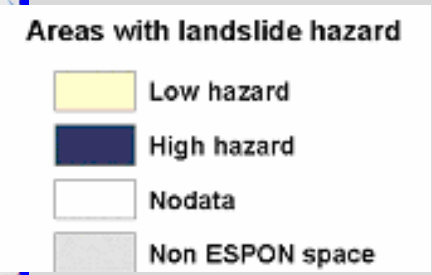
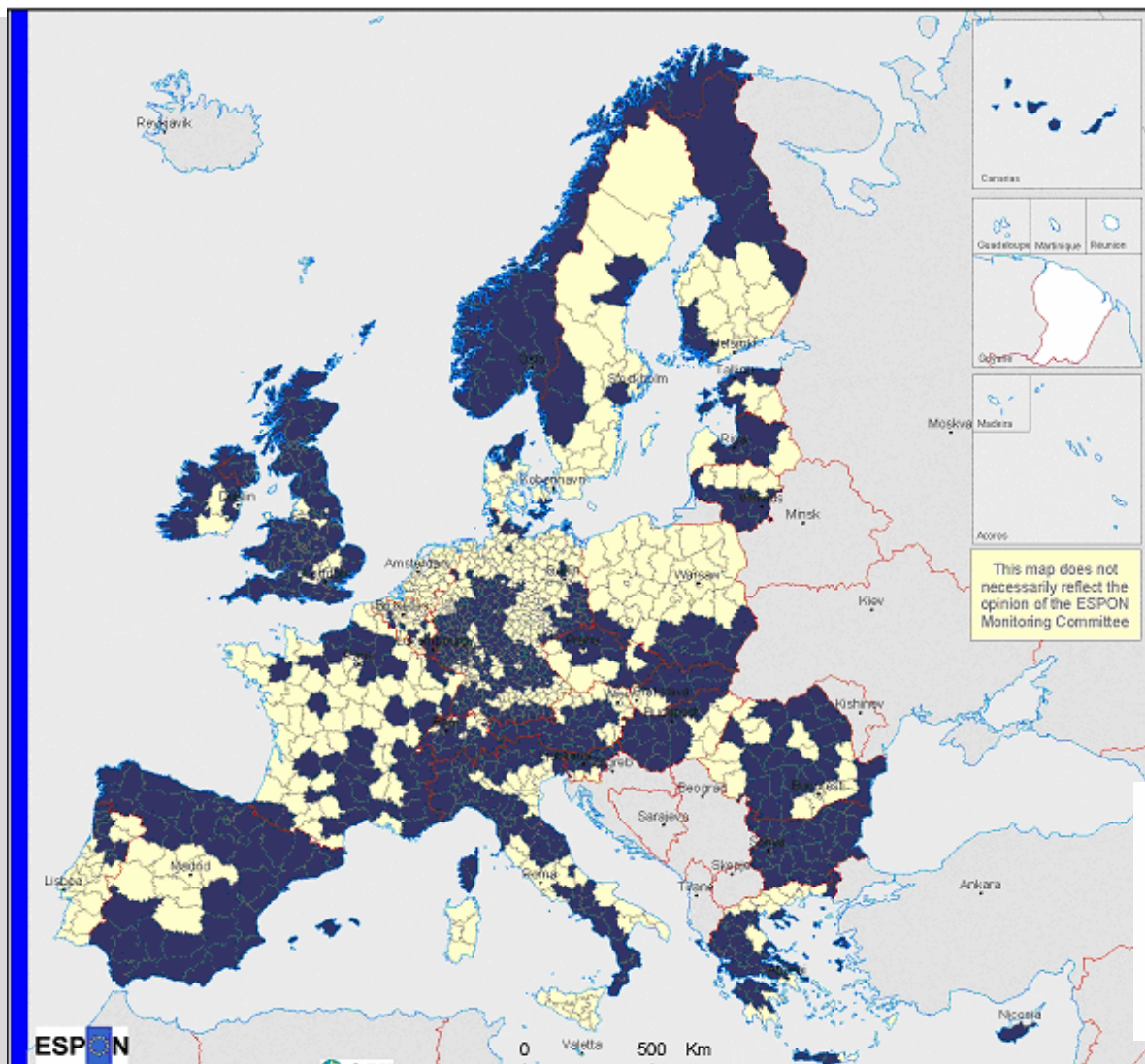
- Territorial analysis (thematic analyses, quantitative and qualitative approaches)
- Analyses of policy impacts (ex-ante and ex-post)
- Search and elaboration of information about the future (projections, scenarios, identification of driving forces and of their evolution, evolution of public policies..)
- Identification of most significant territorial challenges and potentials (present and future)
- Methodologies and Tools

- **IDENTIFICATION OF STRATEGIC KEY ISSUES (AND PROJECTS) FOR FUTURE TRANSNATIONAL COOPERATION**

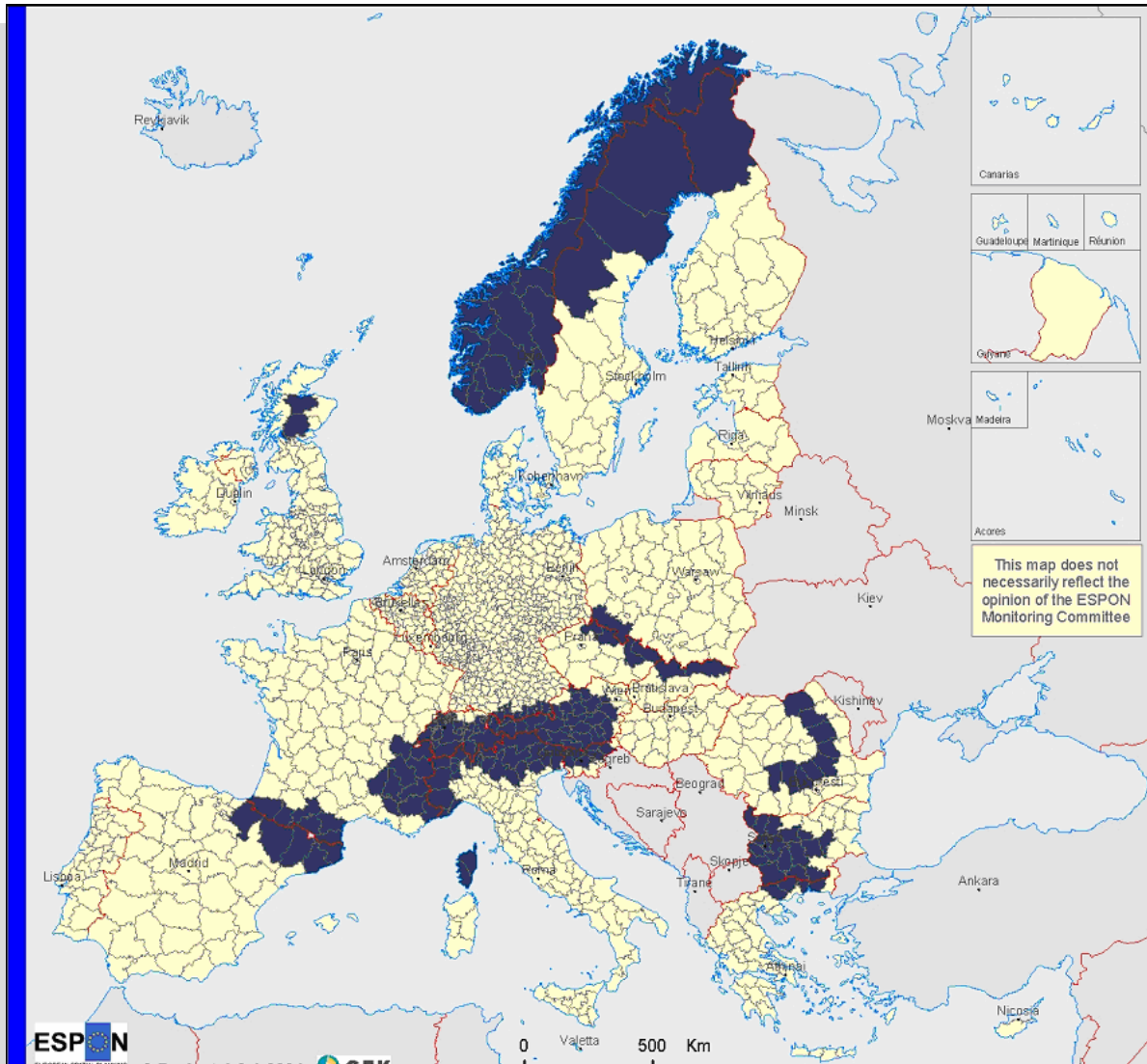
Potential contributions of ESPON for the identification of strategic key issues for future transnational cooperation

- Provision of an integrated transnational spatial data base (NUTS2 and NUTS3);
- Maps data base;
- Identification of most important driving forces and of their possible evolution, together with possible territorial impacts;
- Analyses of policy impacts
- Provision of thematic analyses on the constraints and performance of European regions (territorial potentials);
- Awareness raising information about changing contexts (through scenarios and speculative research on non-linear processes)

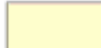

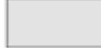
Landslides



Avalanches



Avalanche hazard

-  No avalanches
-  Avalanches
-  Non ESPON space

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

Climate change: Likely effects on hazard potential

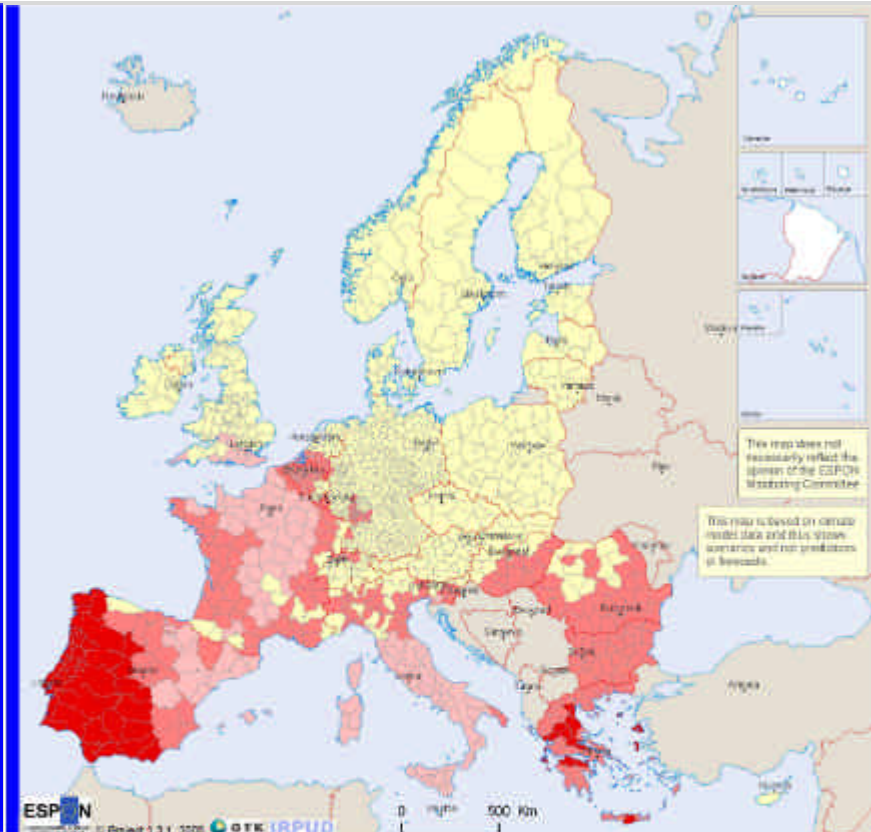


Change of precipitation affecting flood hazard

- No impact on flood hazard
- Increasing impact on flood hazard
- Increasing impact on flood hazard
- Decreasing impact on flood hazard
- No data
- Non ESPON space

Origin of the data: © EuroGeographics Association for the administrative boundaries
Large flood areas © Delft/roth Flood Observatory
Flood areas © EEA - Earth Observation - Earth online
The Prudence project model database
Source: ESPON Data Base

This map represents the connection between change of precipitation (The Prudence project model database) and flood hazard. Only the highest hazard intensities (4 and 5) are chosen.



Change of dry spell length affecting drought potential

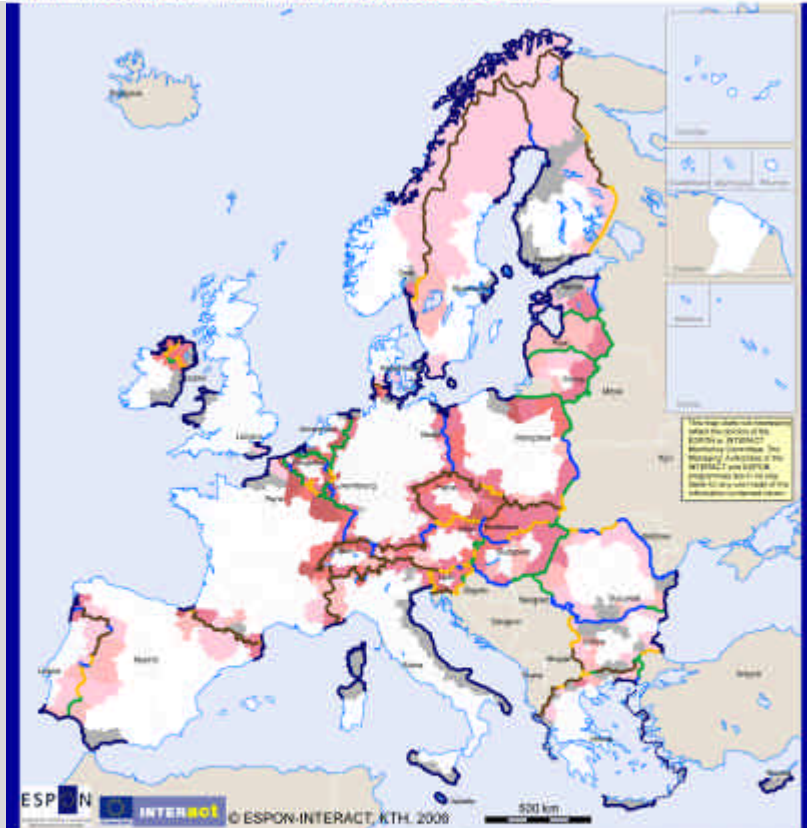
- No impact on drought potential
- Very low increasing impact on drought potential
- Low increasing impact on drought potential
- Moderate increasing impact on drought potential
- No data
- Non ESPON space

Origin of the data: © EuroGeographics Association for the administrative boundaries
ARIDE final report (2001)
The Prudence project model database
Source: ESPON Data Base

This map represents the connection between change of dry spell length (The Prudence project model database) and drought potential, based on precipitation deficit recordings 1804-1896.

Analysis of border types

Geographic type of land border of NUTS 3 regions plus density of border crossings (roads and rail crossings per 100km) in border regions across EU 27+2



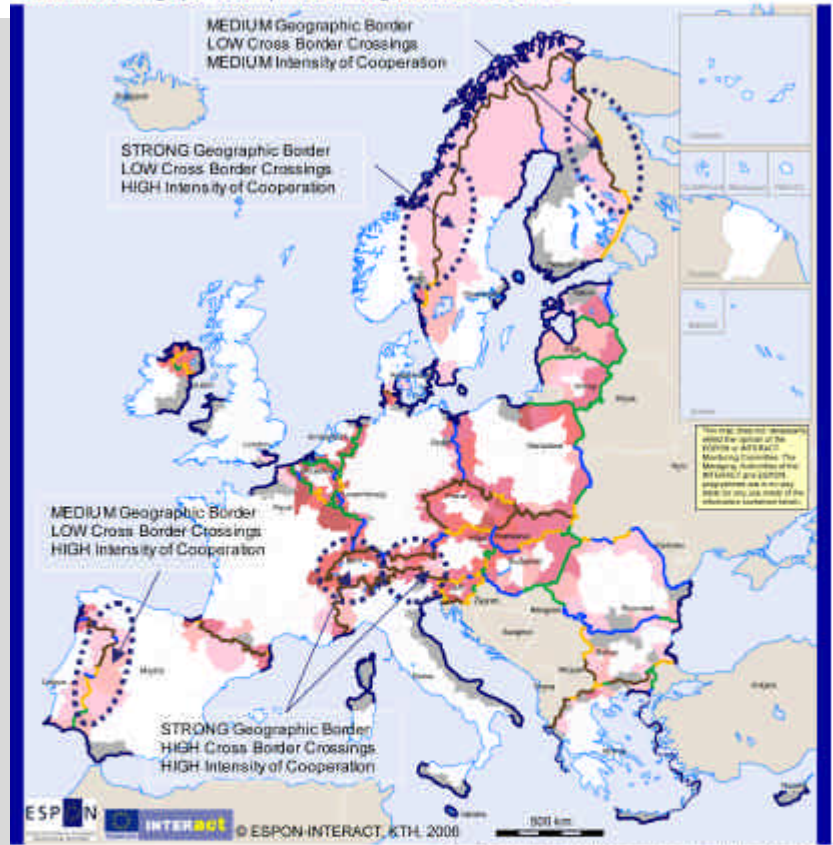
© EuroGeographics Association for the administrative boundaries

Source: KTH, Land crossings in border regions Database (2006) for density of accessibility and location of rivers and green areas; Norregio 2004/DG Regio for location of mountains

- Non border regions
- No density (No international railroads crossings)
 - VERY LOW (0 - 3 crossings per 100km.)
 - LOW (3 - 5 crossings per 100km.)
 - MEDIUM (5 - 10 crossings per 100km.)
 - HIGH (10 - 15 crossings per 100km.)
 - VERY HIGH (more than 15 crossings per 100km.)

- Type of Border:
- River
 - High Mountain
 - Low Mountain
 - Green
 - Sea Border

Geographic type of land border of NUTS 3 regions plus density of border crossings (roads and rail crossings per 100km) in border regions across EU 27+2



© EuroGeographics Association for the administrative boundaries

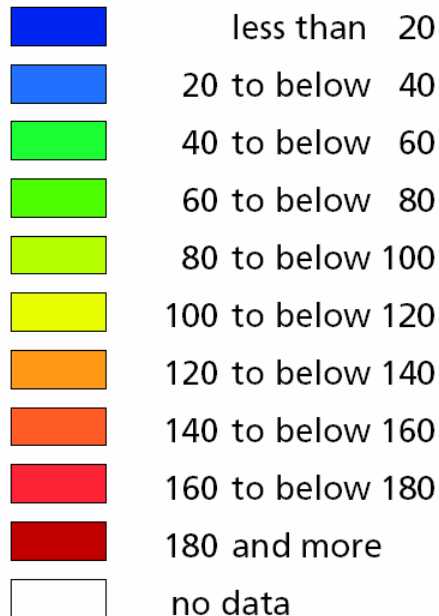
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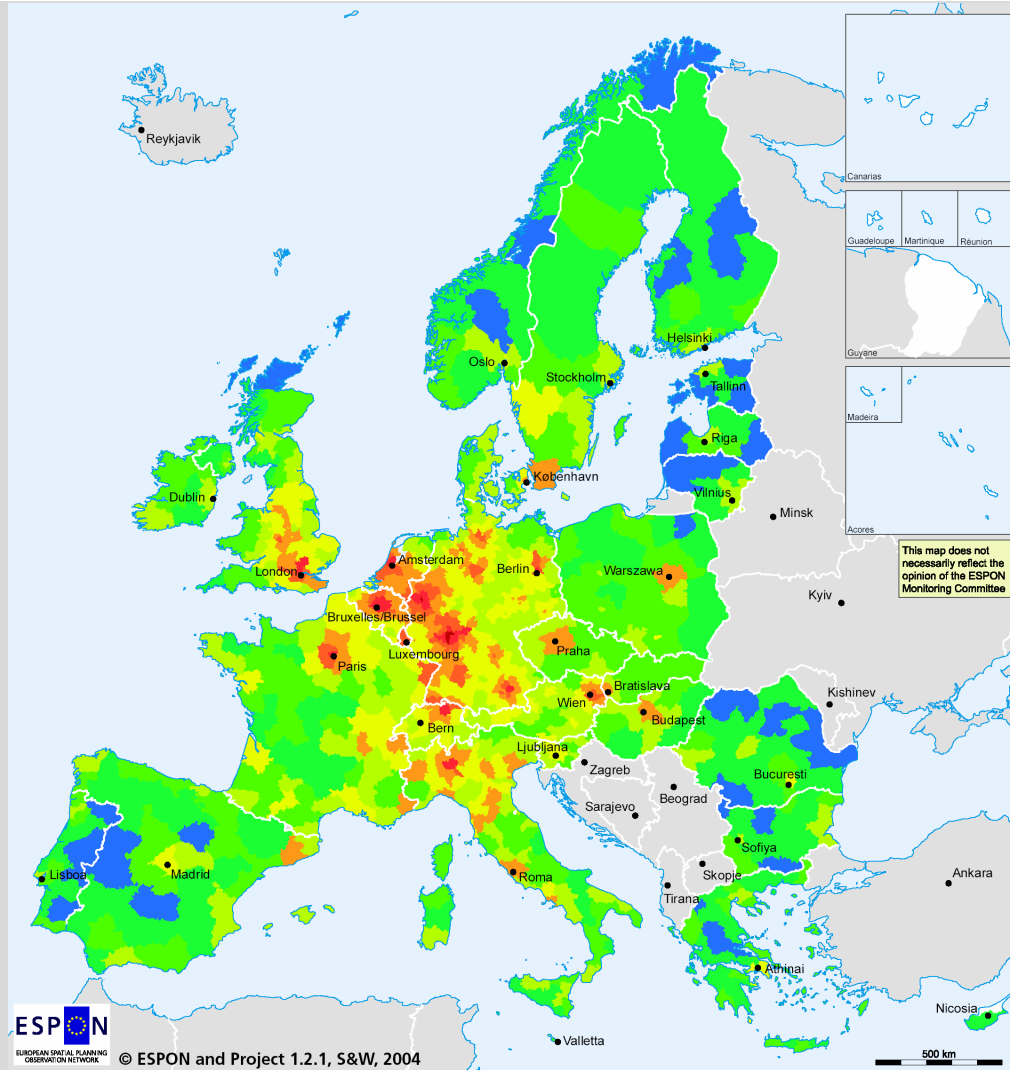
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Potential accessibility multimodal, 2001

Accessibility index (EU25+2 = 100)

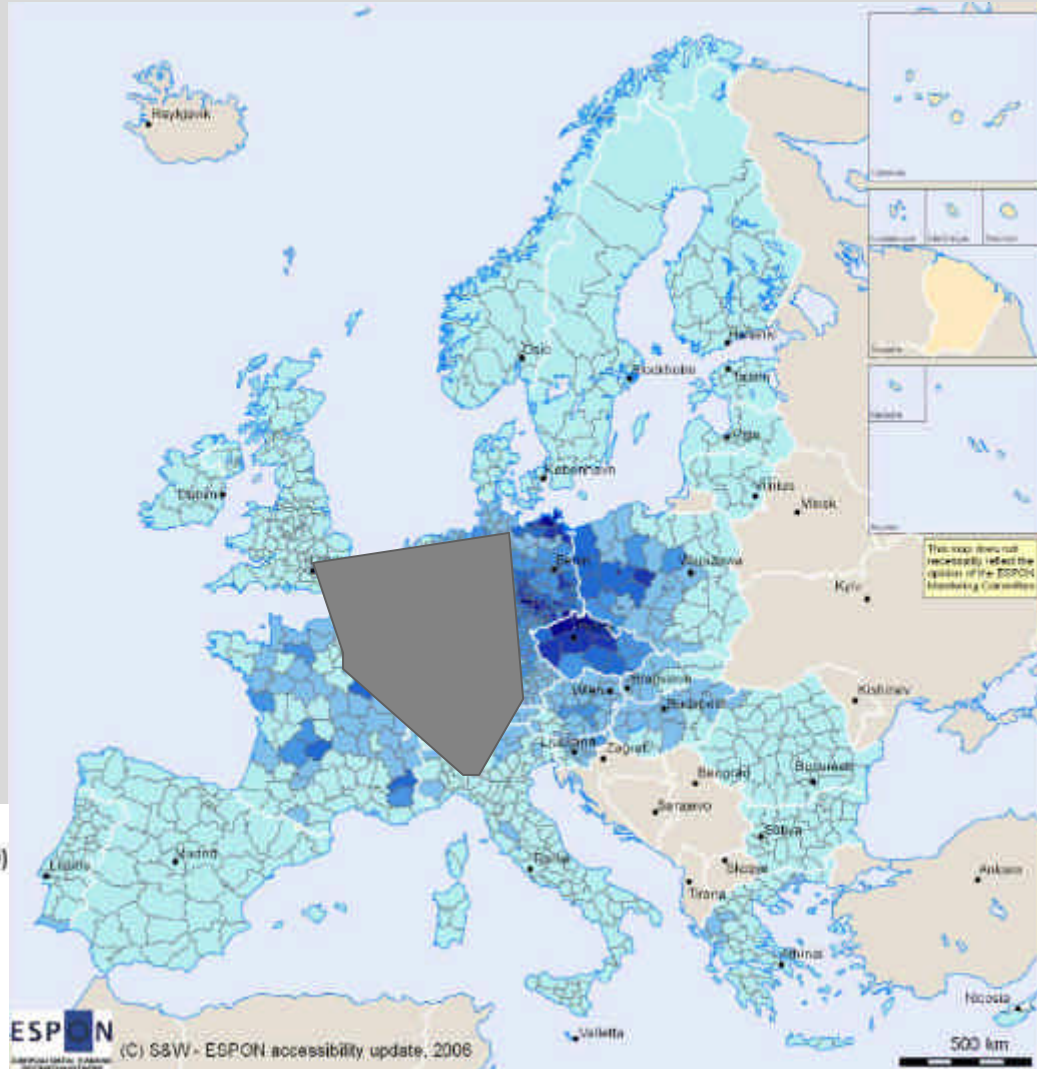


© EuroGeographics Association
for the administrative boundaries
Regional level: NUTS 3
Origin of data:
Spiekermann & Wegener (S&W)
Source: ESPON database



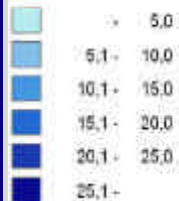
Absolute change of potential accessibility by road between 2001 and 2006

- Areas in the vicinity of the Pentagon are improving in potential accessibility by road
- Eastern fringe of the Pentagon is gaining the most



Potential accessibility

Road, absolute change 2001-2006 (EU27 absolute average in 2006 = 100)

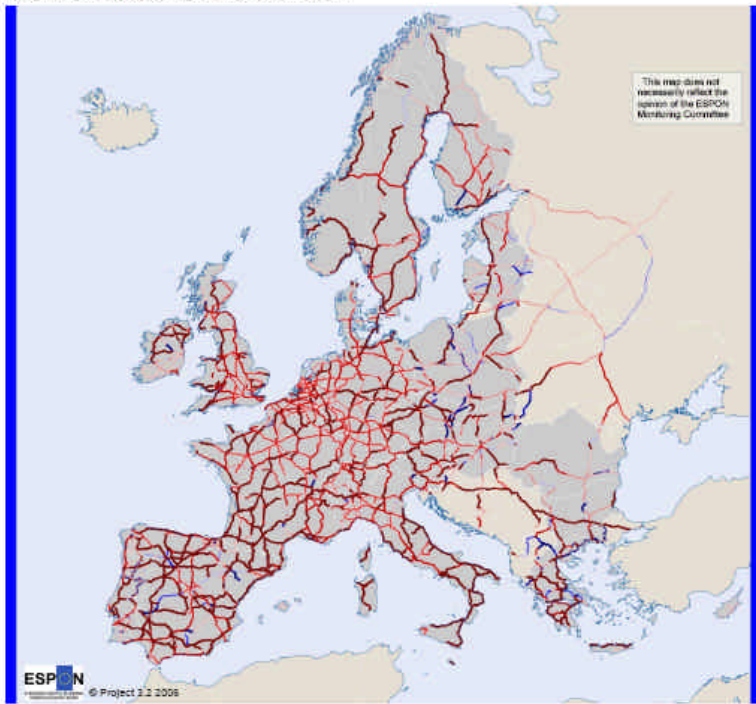


(C) EuroGeographics Association
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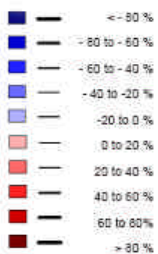
Data sources:
RRG GIS Database
S&W Accessibility Model

Further congestion or improved accessibility

Road traffic variation baseline 2000-2030

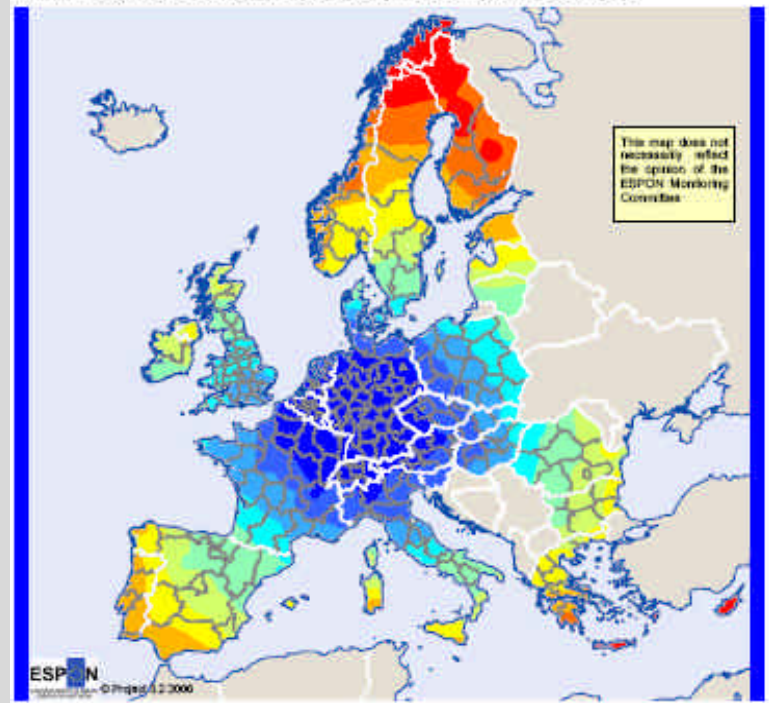


Traffic variation (%)

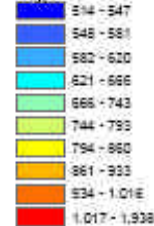


© EuroGeographics Association for the administrative boundaries
Origin of data: ASSEMBLING graph GISCO, KTEB metamodel
Source: MCRIT

Multimodal accessibility 2030 baseline as mean travel cost



Legend



© EuroGeographics Association for the administrative boundaries
Origin of data: ASSEMBLING graph GISCO, KTEB metamodel
Source: MCRIT

Multimodal accessibility measured as
Mean cost of travel from NUTS2 x
capital to the rest of NUTS2:

$$\frac{\sum_{i=1} Cost_{NUTS2_{i-4}}}{N}$$

Higher values indicate worse accessibility.

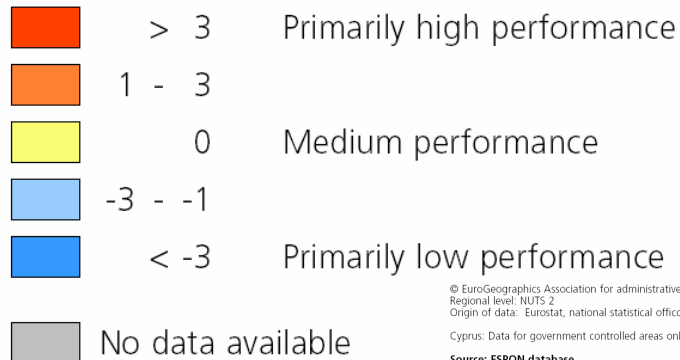
Economic Lisbon indicators

7 out of 14 Lisbon indicators:

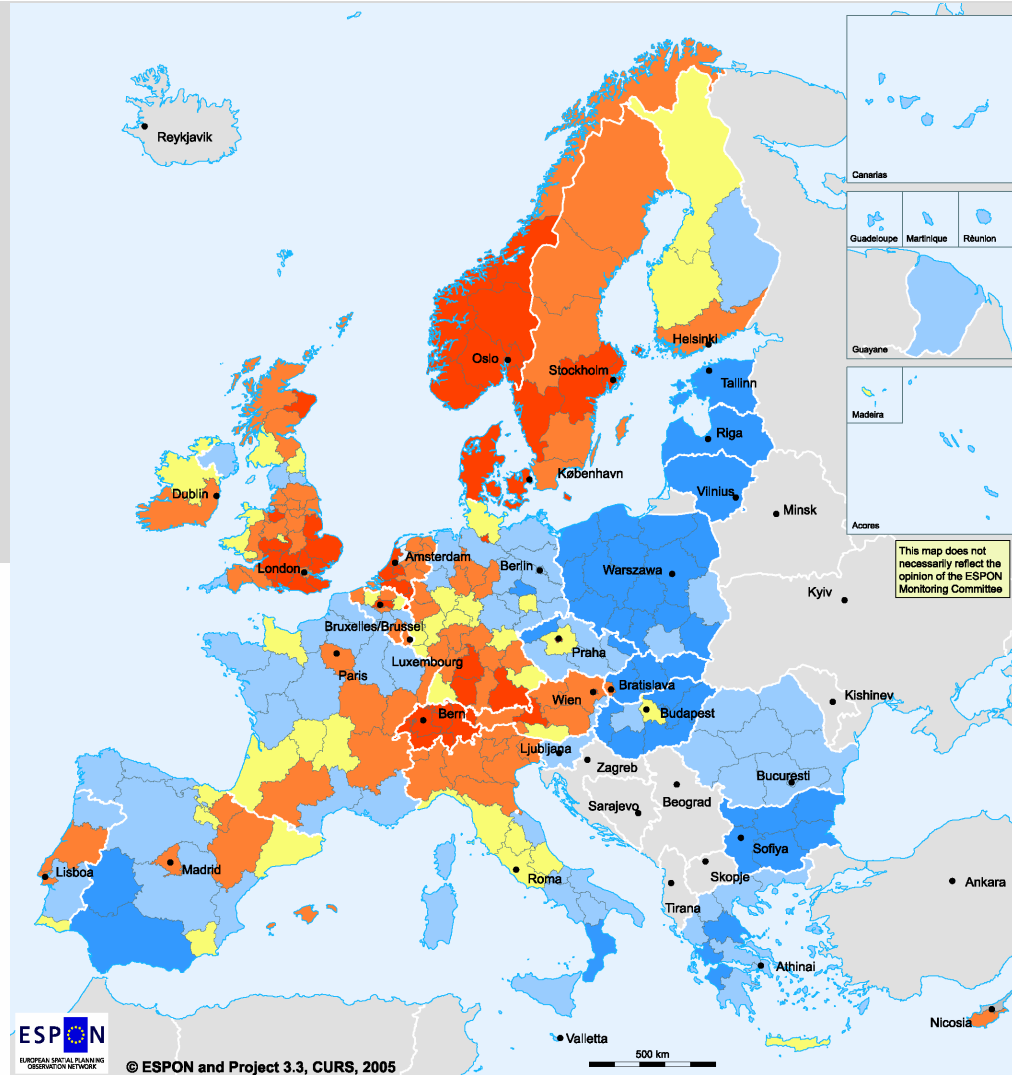
- (1) GDP/capita,
- (2) GDP/employed person,
- (3) Employment rate,
- (4) Employment rate of older workers,
- (5) Gross domestic expenditure on R&D
- (6) Dispersion of regional (un)employment rates
- (7) Long-term unemployment rate.

Performance

Number of indicators in the upper quartile minus number of indicators in the lower quartile



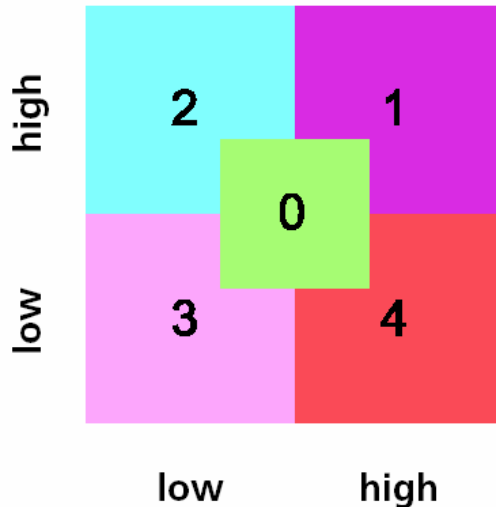
© EuroGeographics Association for administrative boundaries
Regional level: NUTS 2
Origin of data: Eurostat, national statistical offices
Cyprus: Data for government controlled areas only.
Source: ESPON database



Cultural and creative professions/GDP per capita

Regional categories

Employment with cultural and creative professions as share of active local population, 2005

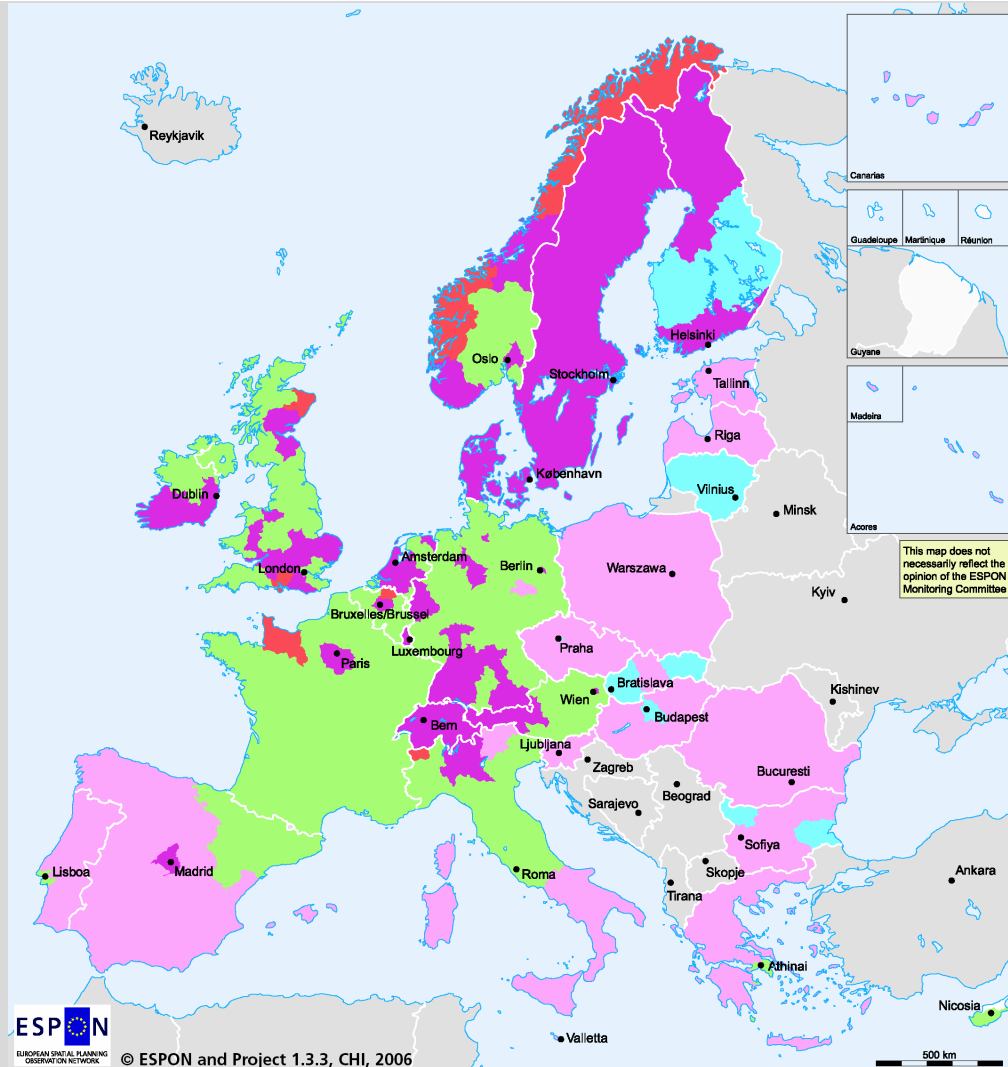


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Regional level: NUTS 2
Origin of data: ESPON Project 1.3.3, CHI

Source: ESPON database

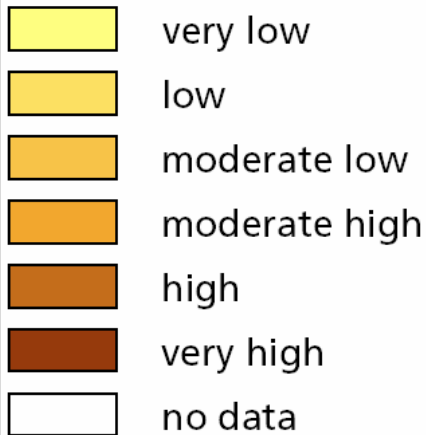
- 0: Normal values ($x^2+y^2 < 0.752$)
- 1: high GDP & high % of cultural employment
- 2: low GDP & high % of cultural employment
- 3: low GDP & low % of cultural employment
- 4: high GDP & low % of cultural employment



Information society readiness, growth and impact

IS Readiness Resources and skills for ICT use	Wealth	Households disposable income
	Skills/Education	Human resources in science and technology
	Adoption of basic technologies	Households with a fixed phone line
IS Growth Availability and use of ICT technologies	Households	Households with a PC
		Households with at least one mobile
		Households with internet access
	Businesses	Households with broadband internet access
		Access to fibre backbones
IS Impact Economic implications of IS	Impact on labour market	Firms with internet access
		Firms with websites
	Innovative activity	Hightech employment
		ICT patents

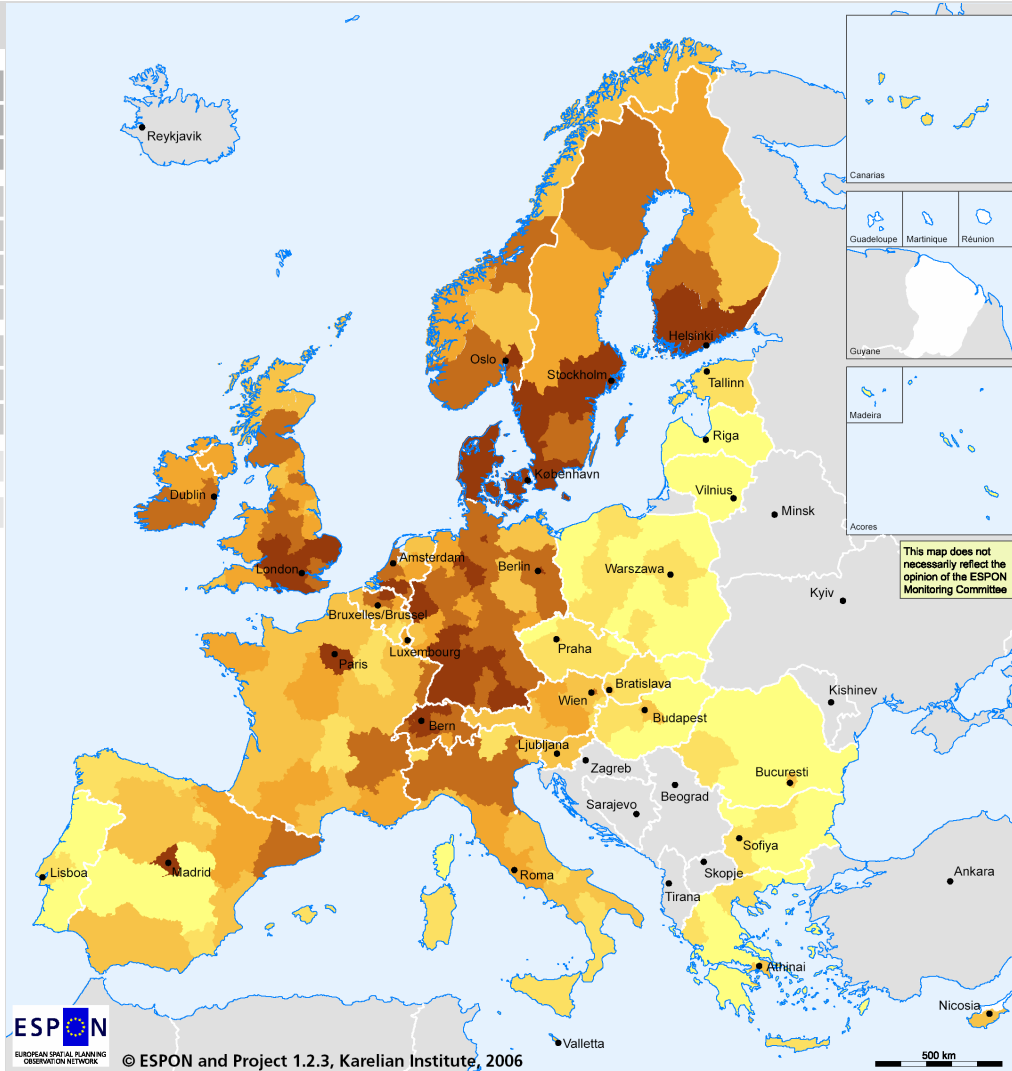
Information society index, 2003



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Regional level: NUTS 2
Origin of data: ESPON Project 1.2.3, Karelian Institute

Source: ESPON database








Major urban areas, their accessibility and significant profiles

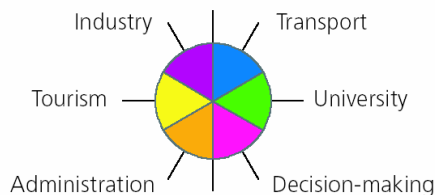
Accessibility to the nearest MEGA by truck - travel
time to reach the nearest MEGA in minutes

-  up to 120
-  120 to below 180
-  180 to below 240
-  240 to below 300
-  300 and more
-  No data available

Decision-making functions outside
MEGA's by significance

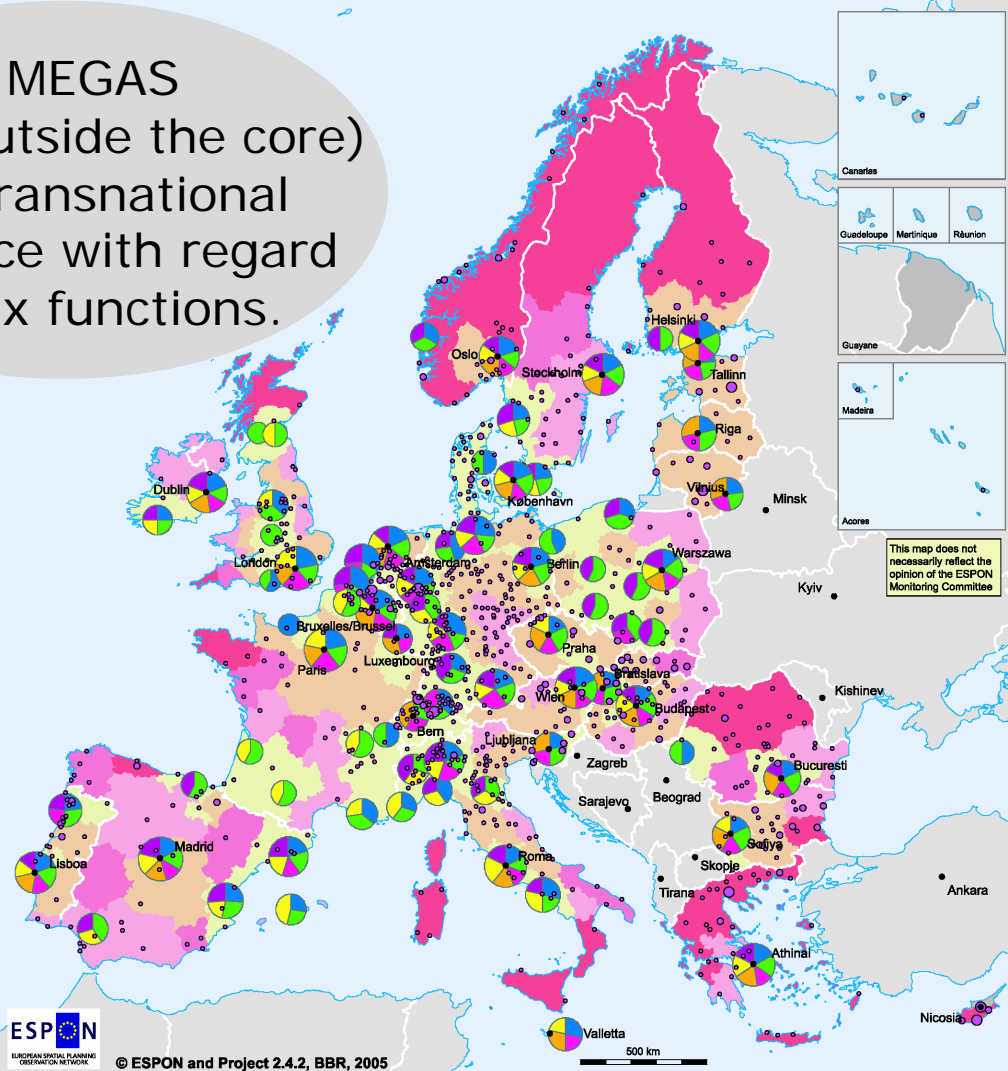
-  Global significance
-  European significance
-  National/transnational significance
-  Regional significance
-  Local significance

Metropolitan European Growth Areas (MEGA) by
functional importance of global, European and
transnational significance



Size according to average value of related significance
of functions

14 MEGAS
(mainly outside the core)
are of transnational
importance with regard
to all six functions.

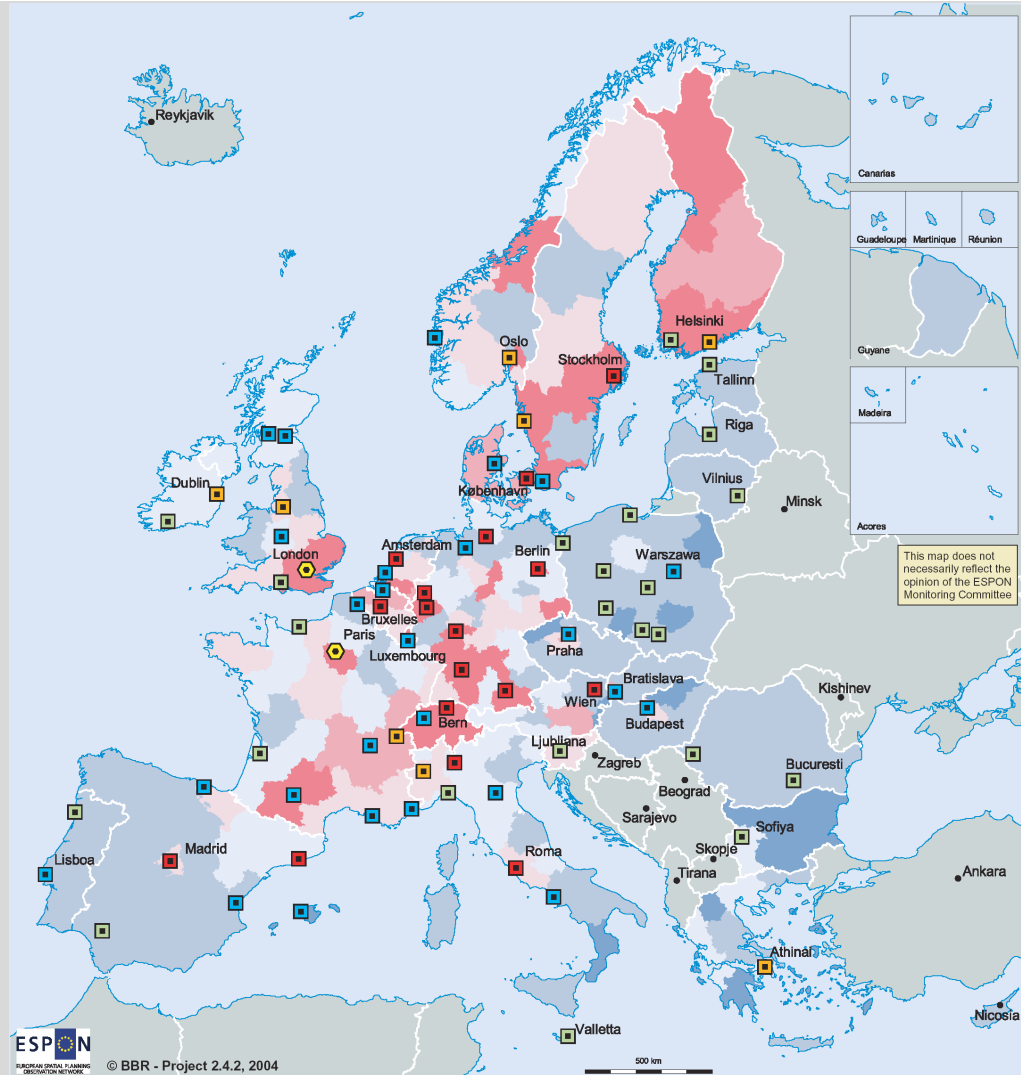


This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

© EuroGeographics Association for administrative boundaries
Regional level: EU L2
Country of data: ESPON (EU) - Kadaster, ESPON (EU) - JRC
Copyright for government controlled areas only
Source: ESPON database

Research & Development importance

- Highest expenditure in regions close to the Pentagon and few areas to the north and south
- At national level often concentration around the capital city
- Knowledge production as higher education rather territorially balanced in Europe



Degree of importance of research and development as an aggregate of 2 indicators: *

- Low
- Below average
- Moderately below average
- Moderately above average
- Above average
- High

* Additive combination of standardised R&D indicators: expenditure of R&D, and personnel in BES as percent of total personnel.

Metropolitan Growth Areas

- Global City
- European engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

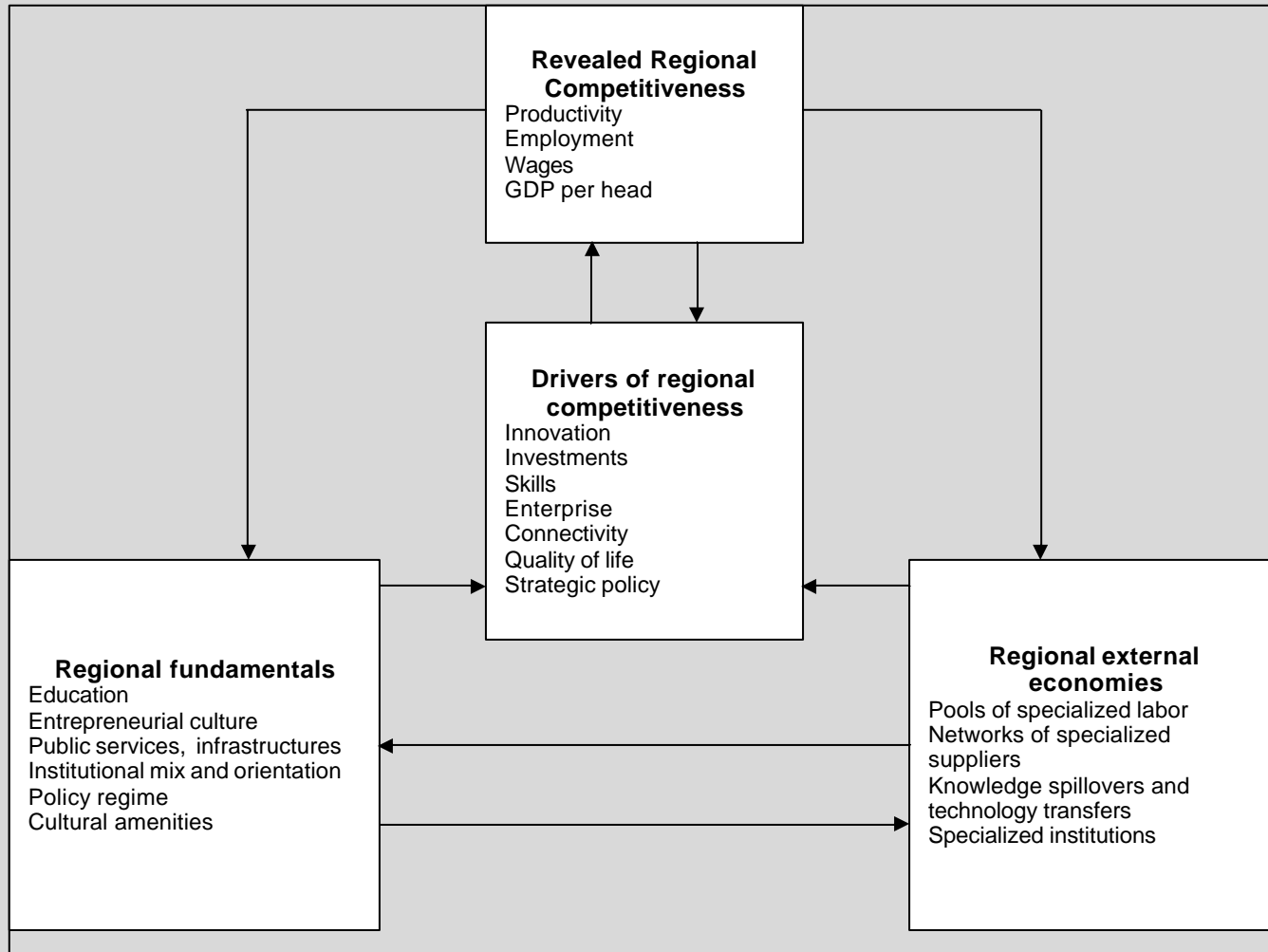
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Regional level: NUTS 3

Origin of data: TAURUS, BBR project 3.1 for R&D; Nordregio project 1.1.1 for MEGA's

Source: ESPON database

Capacity for productivity = complex interaction of many different factors



source: Martin, 2005

From ESPON 2006 to ESPON 2013

More evidence

More networking and dissemination

More user-oriented

The ESPON Programmes

Evidence on territorial development and cohesion

ESPON 2006: Programme under SF/Interreg III

- Support to policy development and Platform for applied European territorial research
- Geographical coverage: Entire EU 25+2+2 countries
- 34 applied research projects in total
- Budget of 17 million Euro

ESPON 2013: Programme under SF/Objective 3

- Evidence for territorial policy development and use of results offering a European territorial perspective
- Geographical coverage: Entire EU 27+4 countries
- Applied research, **targeted analysis, capitalisation strategy**, and further consolidation of the scientific platform
- Budget of **45 million Euro**

Priority 2: Targeted analysis based on user demands: European perspective to different types of territories

- Objective
 - Use of ESPON results at European, transnational, national, cross-border and regional/local level
- Main type of actions
 - Integrated studies and thematic analysis
 - Knowledge support to experimental and innovative actions
 - Joint actions related to other Structural Fund Programmes
- Screening of demand (at least 2-3 times during programme) and involvement of stakeholders
- Criteria: European dimension and transferability
- Proposals from EU and MS related to territorial policy, SF programmes and groups of regions and cities
- Expected output: 20-40 targeted analysis (smaller and larger)

More information

Thank you for your attention

Please visit

www.espon.eu

All ESPON synthesis documents as well as final and interim results, data and mapping tools are available for free